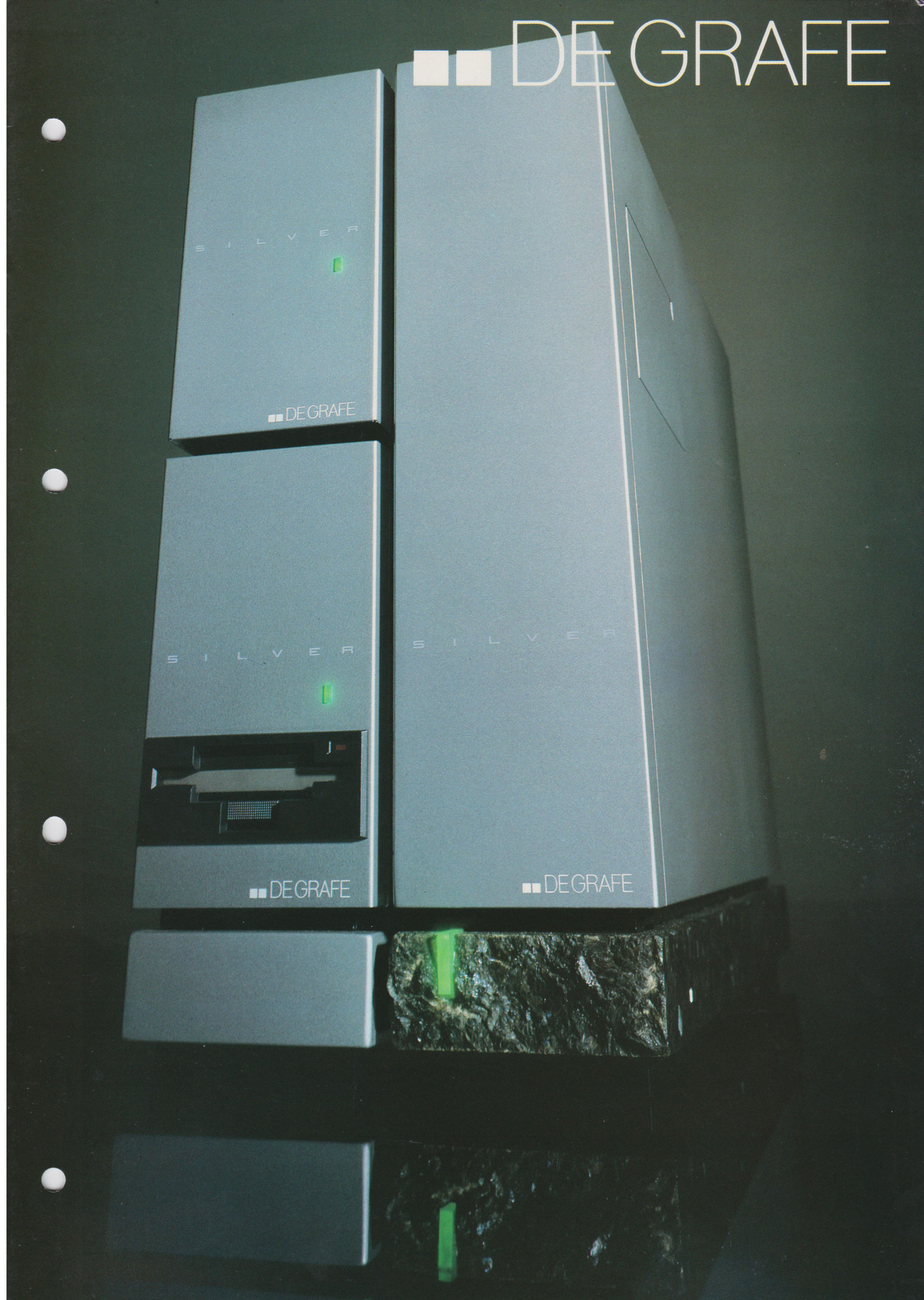


■ ■ DE GRAFE





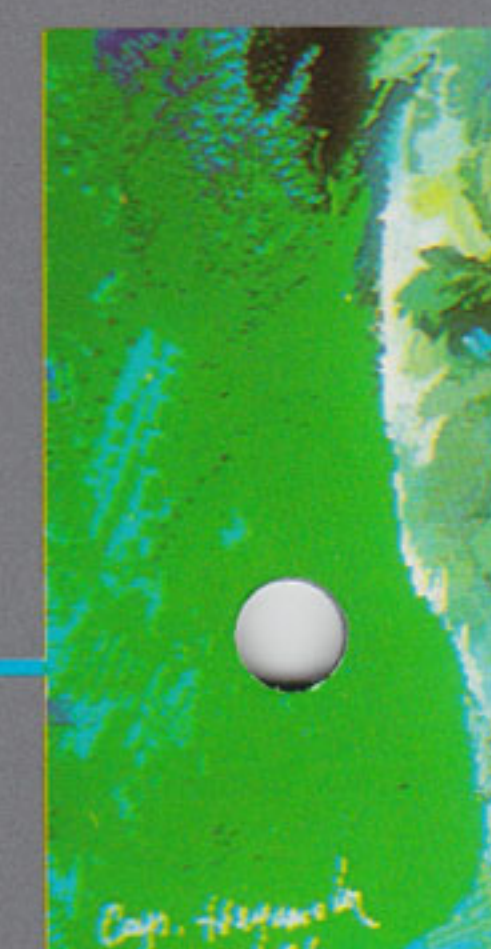
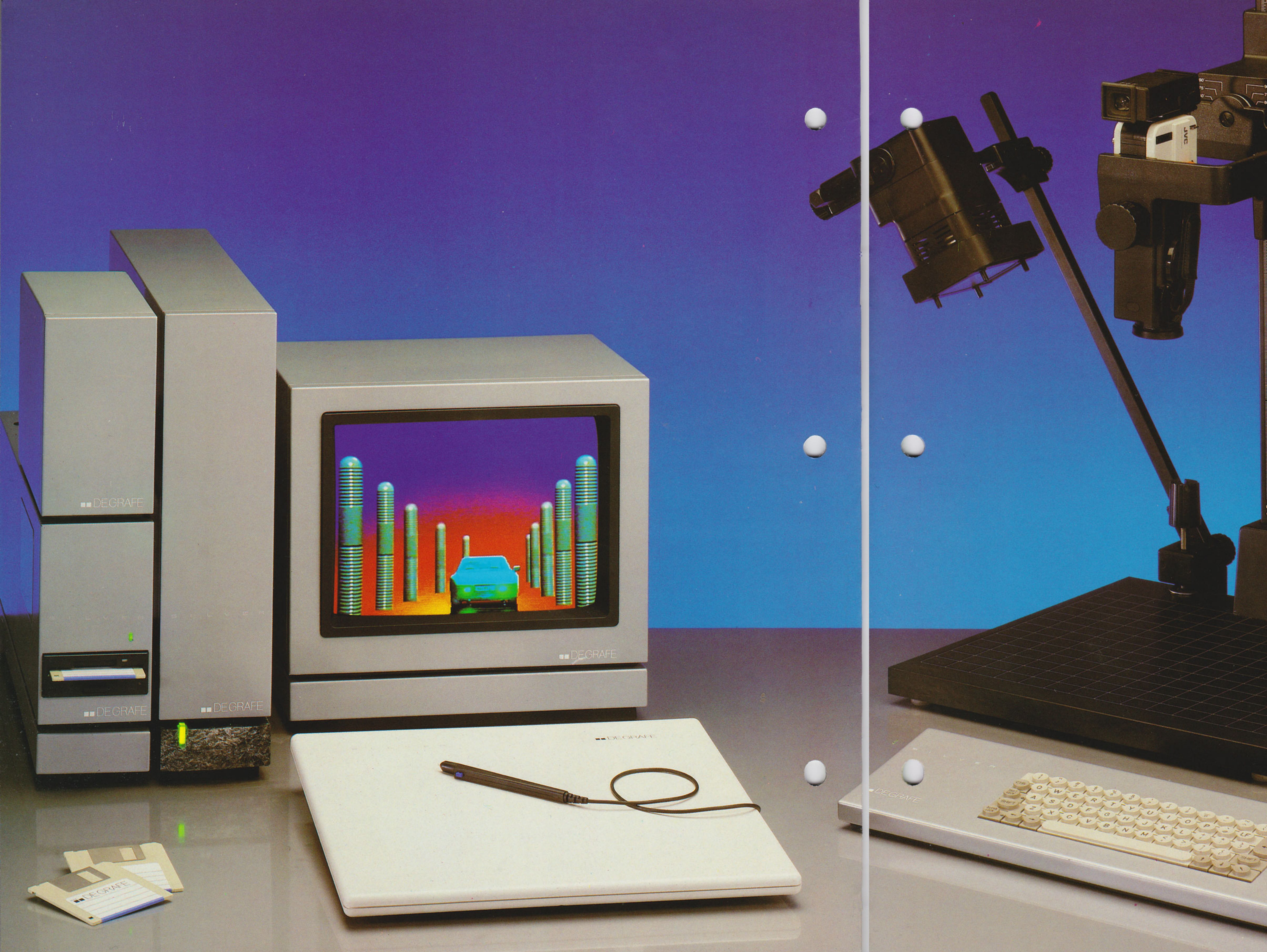
## The freedom to Create

DE GRAFE presents a remarkable tool for professionals working in the field of creation and communication.

At an accessible price, the **SILVER Workstation** offers a wide number of possibilities which until now have only been available on much bulkier systems. The **SILVER Workstation** comprises a central unit, graphic tablet, keyboard and integrated videographic software.

The **SILVER Workstation** benefits from a unique conception, linking the power of 7 dedicated processors with an integrated videographic software package that is particularly easy to use. It becomes possible to process images or video sequences in real-time, digitized in 65,000 colors! The **SILVER's** integrated videographic software offers layout functions, a video special effects generator, a character generator, graphics functions which together present a complete and comprehensive tool.

The **SILVER Workstation** has been developed in collaboration with professionals in the field of image creation and communication who had defined their ideal tool. To answer exactly to their needs, adapting a "classic" business computer was not good enough. So DE GRAFE have broken new ground by developing a workstation entirely made-to-measure, which combines ease of use and a wealth of creative functions.



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## Page layout

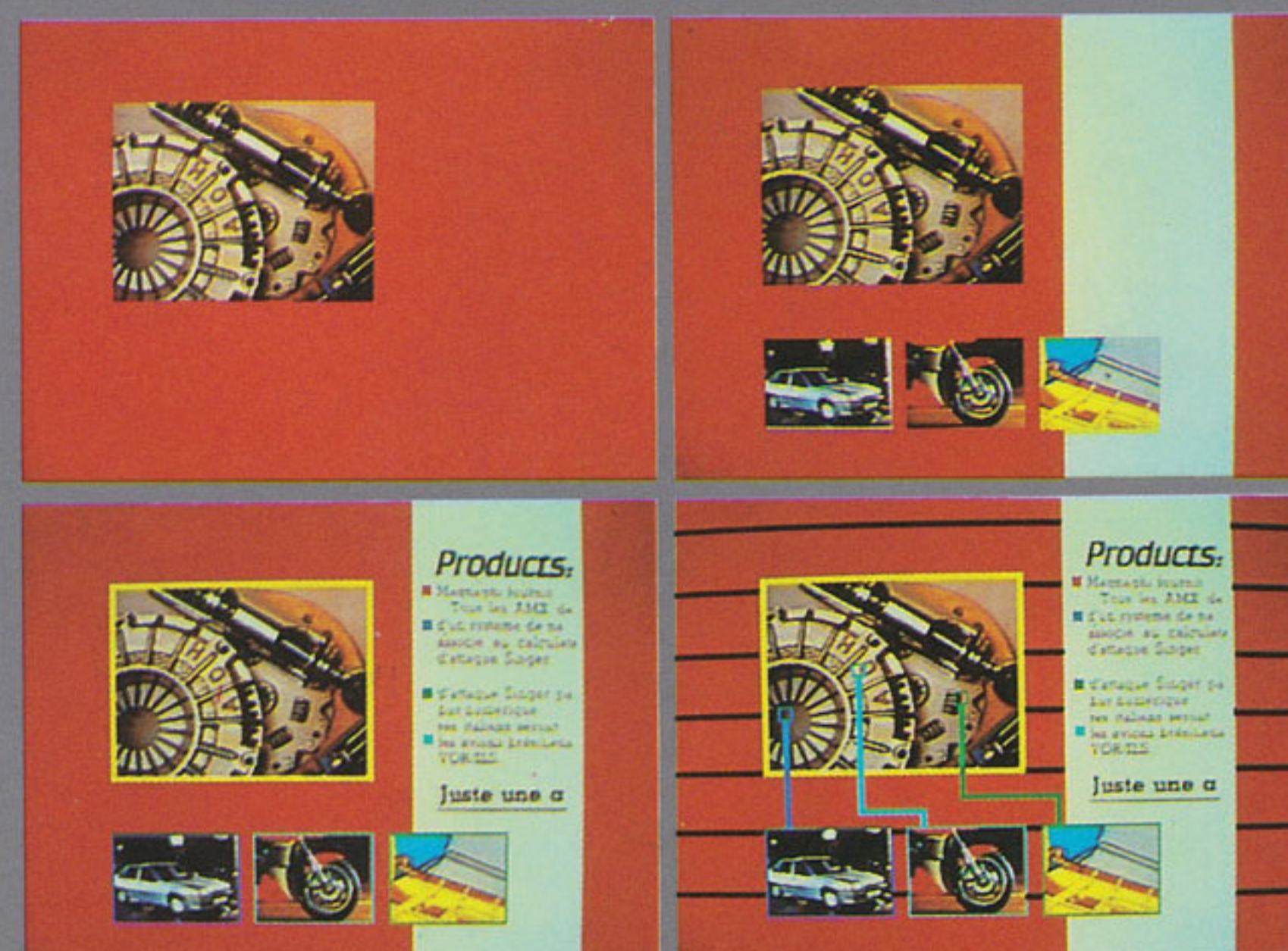


The **SILVER Workstation** owns a suite of specialist functions concerned with page design and layout:

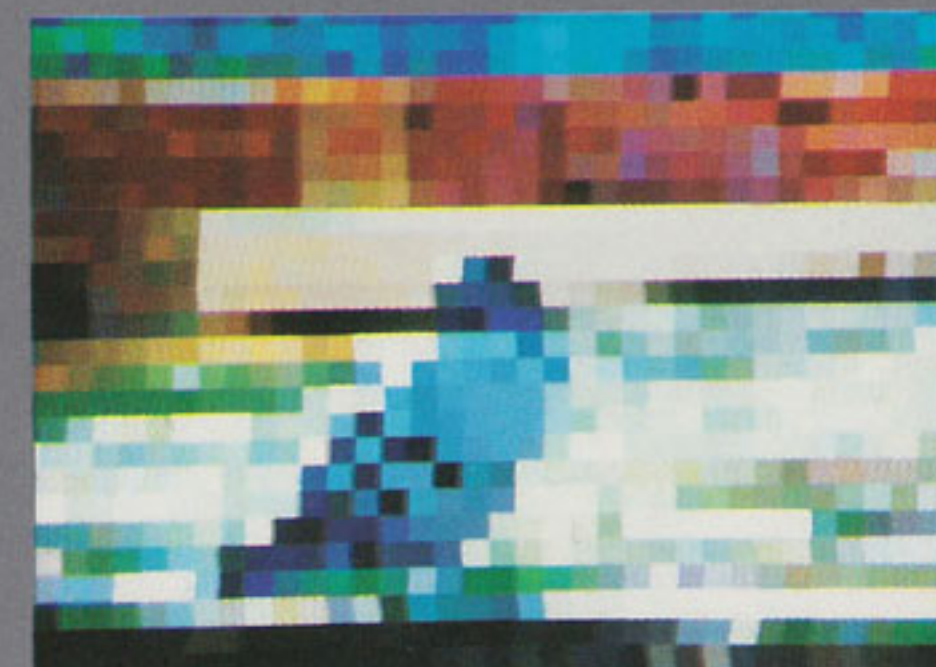
- Area selection by geometric cut-out,
- Paste-up of areas,
- Displacement and repositioning of an area,
- Single and multiple copying,
- Creation of windows,
- Displacement of windows,
- Compression,
- Character generator,
- .../...

En 1986, le professionnel de l'image crée, met en page, digitalise, peint, incruste, réalise, mélange, sous-titre, communique, anime, monte, produit, déplace, zoome, corrige, compresse, recopie, conçoit, efface, colle, teinte, étire, colorise, dessine, ombre, projette, traite, saisi, aérophotographie, justifie, place, travaille, harmonise, forme, compose, assemble, positionne, mixe, synthétise, sur palette vidéographique.

These functions all allow processing of images, irrespective of whether those images are still or moving, from a camera, video cassette recorder, or images created previously.



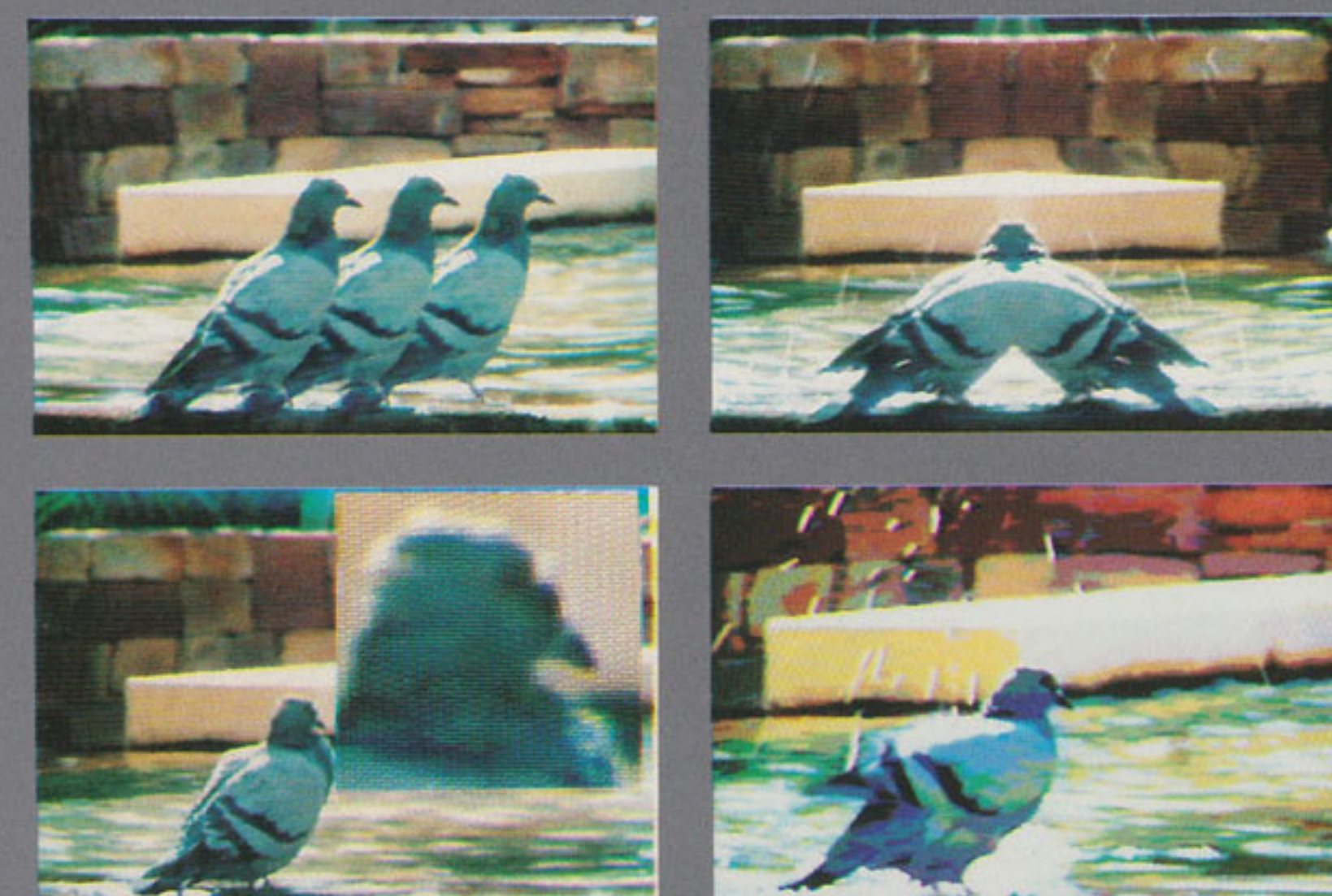
## Video Effects



Conceived for video professionals, the **SILVER Workstation** allows you to work full-screen, processing images in motion.

This workstation combines the possibilities of programmability with the possibilities of:

- a character generator
- a special-effects generator
- a wipe effects generator\*
- a luminance/chrominance colorizer\*
- a frame buffer with zoom
- an electronic editing-bench\* with frame-by-frame recording (by connecting the "video tape controller" extension).



The integrated videographic software alone comprises a character generator and the following special effects:

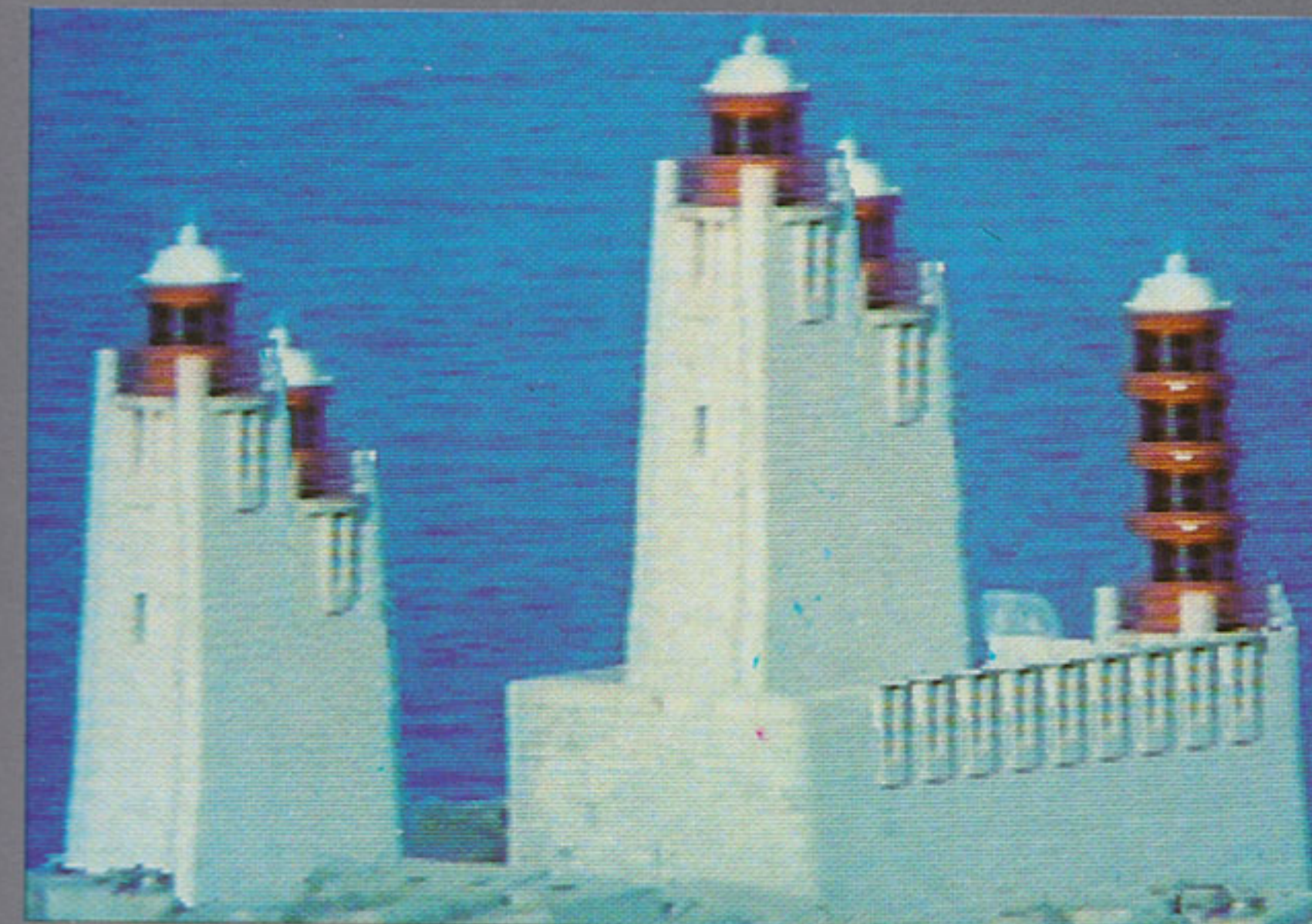
- real-time digitizing 65,000 colors
- zoom
- up to 4 inlayed images in motion simultaneously on the screen
- multiplication of images
- mosaic effects
- vertical and horizontal mirroring
- image freezing and stroboscopic effects programmable up to continuous motion
- realtime colorizing.

The standardised video inputs/outputs are exploitable over professional video equipment with automatic Genlock on every video source (up to 4 simultaneous sources PAL/SECAM or NTSC).

## Electronic re-touching



Using real images (still or moving), the **SILVER Workstation** enables you to achieve particularly astonishing results with treatments like:



- re-touching, using textures selected from the image itself,
- suppression of parts of the image, details or faults,
- modification of backgrounds or of objects,
- copying of a section of the image or of patterns,
- deformation of objects, reductions,
- dissolve around areas copied or displaced, enabling suppression of the disagreeable effects of "cutting and pasting".

\*Intrinsic possibilities of the **SILVER**; these functions are the product of specialised software cartridges.

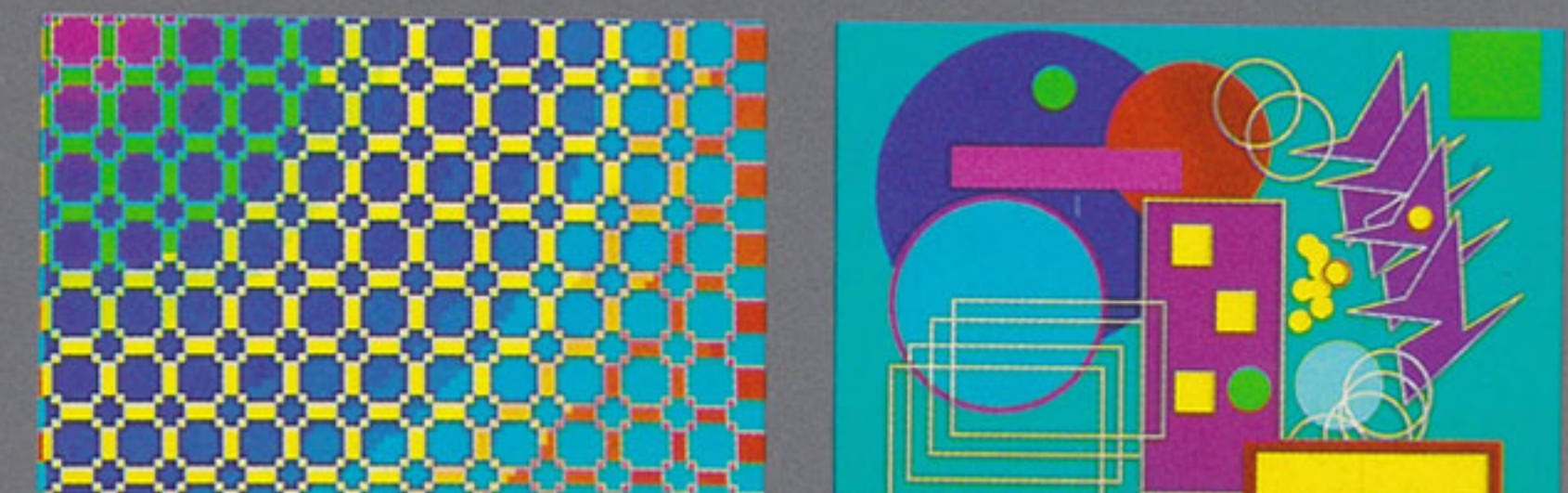
## Graphic creation



Beyond the functions already described, the **SILVER Workstation** possesses all the "standard" functions of an electronic palette, plus antialiasing (smoothing):

- 65,000 colors displayable simultaneously, or 4,096 colors out of 16.7 million with 16 levels of transparency for each one of them,
- free-hand drawing (16 brushes available),
- "Rubber banded" geometrical functions (circles, polygons, ellipses...),
- creation of textures using graphical elements and/or sections of digitized images,
- character sets, compressable or stretchable, inclinable with or without shadow,
- perfect color/tonal gradation on backgrounds or on objects,
- airbrush with adjustable power,
- free-hand copy with the airbrush.

All lines can be drawn using the antialiasing



(smoothing) mode to suppress "staircase" effects particularly noticeable on curves and diagonals.

The integrated videographic software exploits just some of possibilities of the **SILVER**. New software cartridges complement and multiply the features of the cartridges already available; these cartridges are usable simultaneously, so all the functions are cumulative. The integrated videographic software has a "5 year guarantee." That means that all new versions or updating during that period is free.



## An evolving workstation

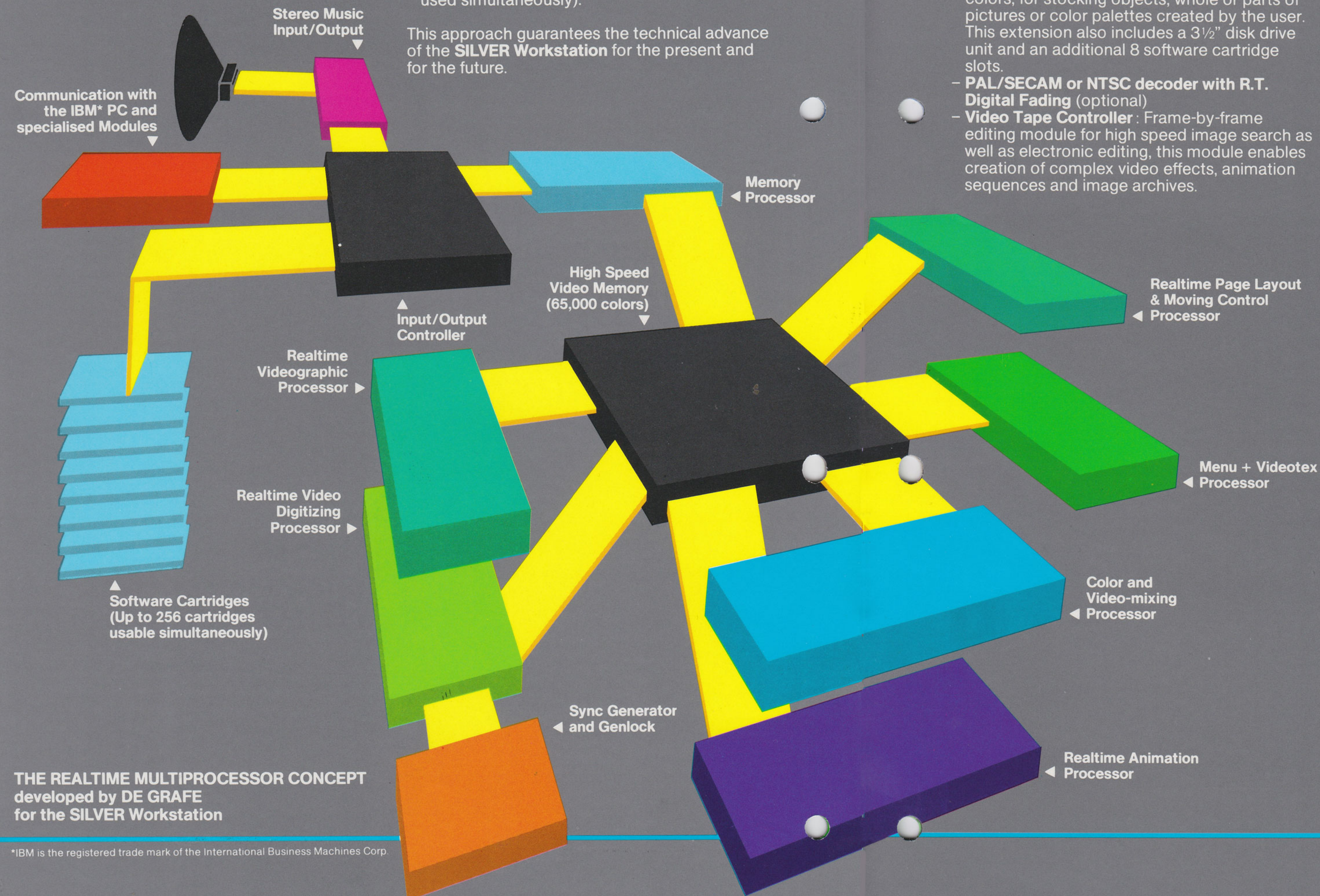
**The DE GRAFE concept : a guarantee for the future.** DE GRAFE has developed a technical concept that answers the needs of the professional : to have at his disposition a totally expandable system, whose performances can be regularly updated.

The unique concept, which matches the performances of 7 dedicated processors, has been developed by DE GRAFE from the research right through to the production stage.

It is characterised by an "open" architecture, which signifies for the user :

- the possibility to increase the workstation's potential, by linking dedicated applications oriented modules,
- open toward existing systems, in particular for dialogue with microcomputers of the PC type,
- continuous development of applications software in cartridge form. Cartridges can be used in combination and the functions are accumulative. (Up to 256 cartridges can be used simultaneously).

This approach guarantees the technical advance of the **SILVER Workstation** for the present and for the future.



## The SILVER Workstation and its extensions.

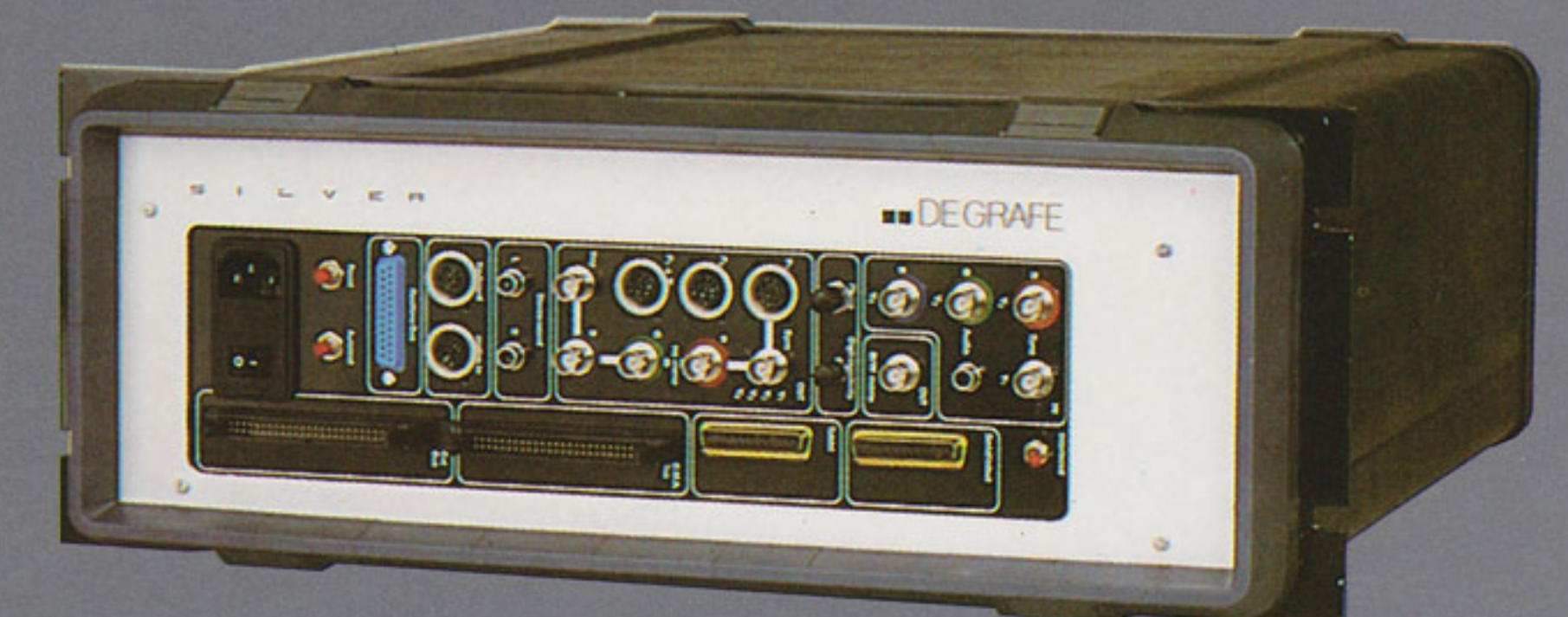
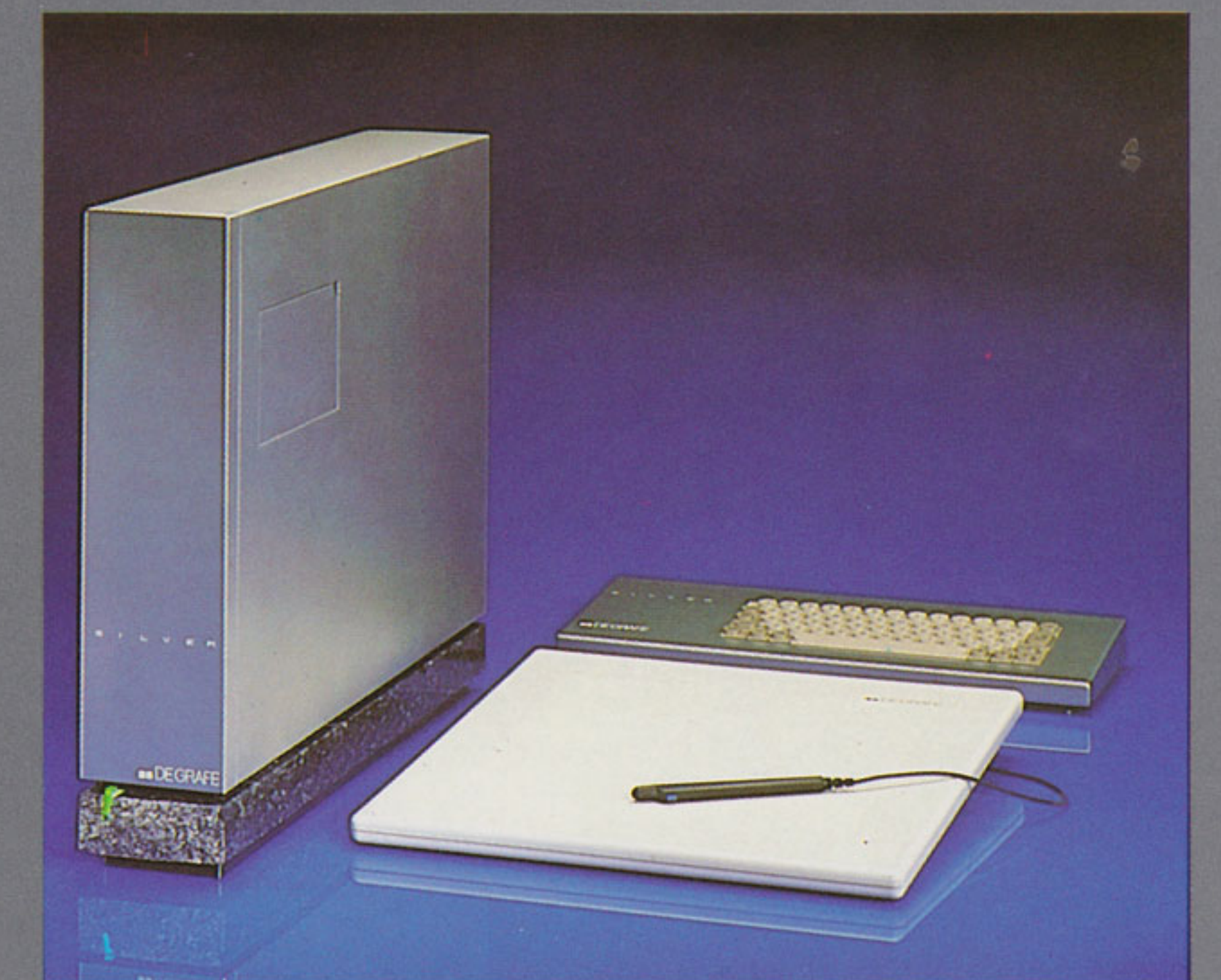
The **SILVER Workstation** comprises a central unit, graphic tablet, keyboard and integrated videographic software. It is possible to connect a host of modules and peripherals to form a comprehensive videographic creation system :

- **Memory extension** : comprises 4 supplementary memory planes of 65,000 colors, for stocking objects, whole or parts of pictures or color palettes created by the user. This extension also includes a 3 1/2" disk drive unit and an additional 8 software cartridge slots.
- **PAL/SECAM or NTSC decoder with R.T. Digital Fading** (optional)
- **Video Tape Controller** : Frame-by-frame editing module for high speed image search as well as electronic editing, this module enables creation of complex video effects, animation sequences and image archives.

- **IBM\* PC/XT/AT interface** : Using an IBM\* or compatible, gives access to the real-time performances of the DE GRAFE multiprocessor concept : linked to an IBM\* PC/XT/AT, the **SILVER Workstation** allows medical or industrial image processing, 3-D design and animation, production of high resolution photographic slides (4000 x 4000 points), and any other application on the IBM\* that uses images.

- **Slide production module** for direct reproduction of images onto photographic film.

The **SILVER Workstation** is also available in 19" rack-mounting version.



\*IBM is the registered trade mark of the International Business Machines Corp.

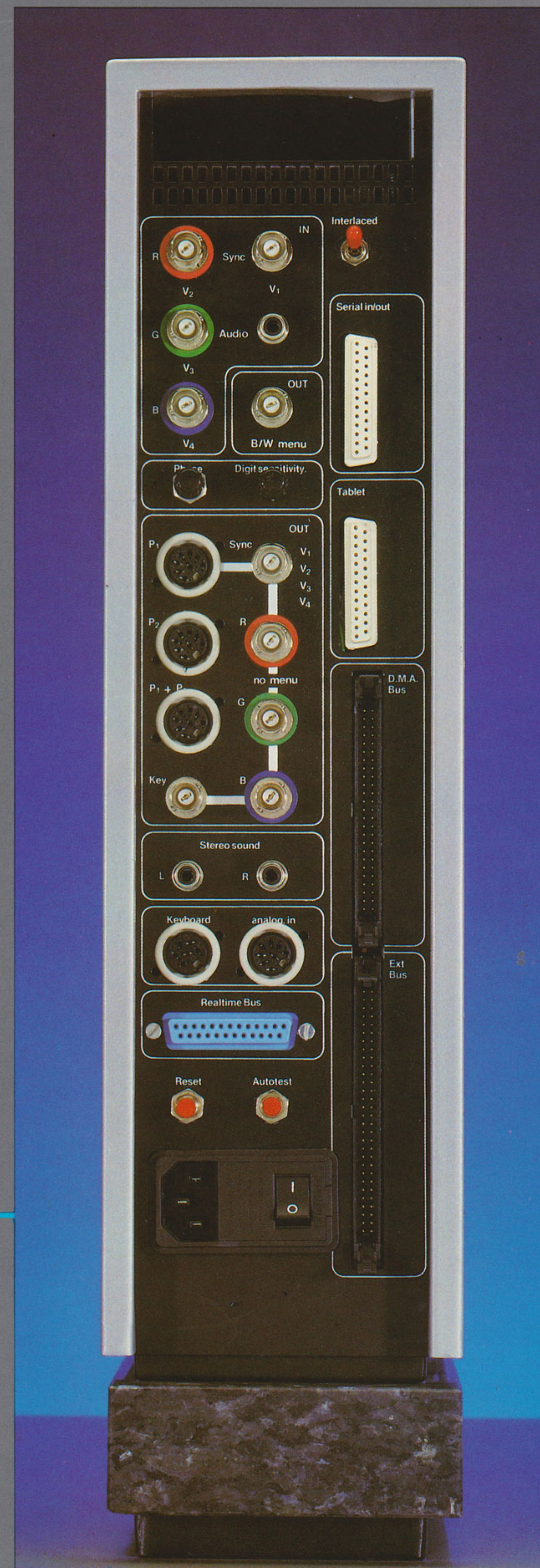
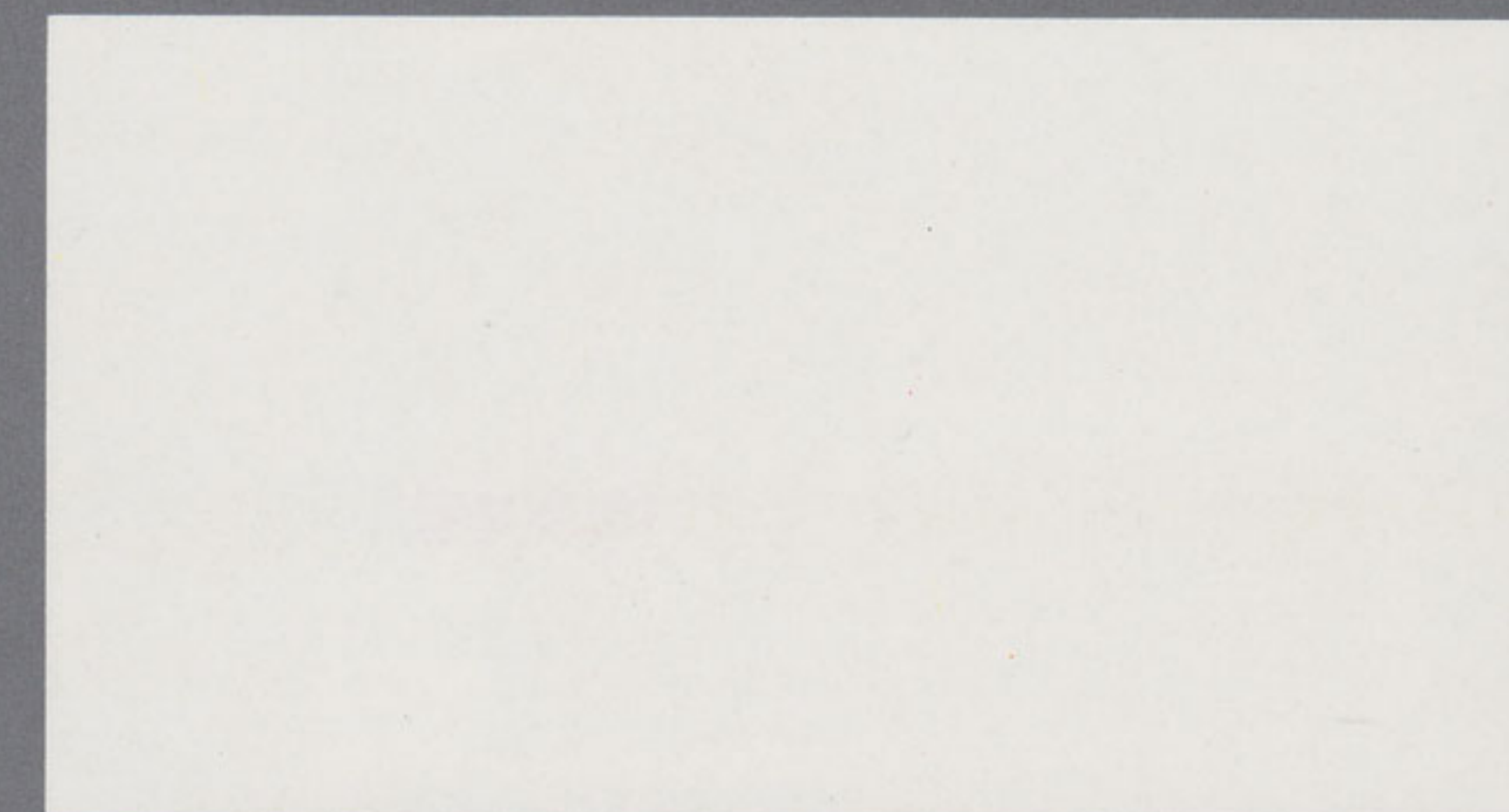


# Connection specifications

- 4 video inputs for digitizing or video inlay with 4 different videos (V1, V2, V3, V4; R, G, B, and sync on every video signal).
- Image stabilisation by means of non-interlacing permitting the use of a domestic television in place of a specialised monitor. (Non-interlaced).
- Audio input for eventual numerical processing in realtime. (Audio).
- Separate menu output for black and white. (B/W Menu)
- Serial input/output RS 232 for connection to any equipment using that standard (printer, modem etc.). (Serial in/out)
- Tablet connection. (Tablet)
- RGB output, 75 ohms for monitor or video console. (R.G.B.)
- Direct video-memory access bus. (DMA Bus)
- Extension bus used (for example) for connection to a PC. (Ext. Bus)
- Right/left sound outputs for the internal stereo synthesizer. (Stereo Sound L & R)
- Analogue inputs for numeric processing according to light, temperature, sound, rhythm etc. (analog. in)
- Circuits autotest button. (Autotest)
- Reset button. (Reset)
- Synchronisation from the SILVER or mixed composite videos. (Sync. Out)
- Adjustment of the DE GRAFE image phase according to video 1. (Phase)
- Adjustment of digitizing sensitivity. (Digit sensitivity)
- Peritel\* output with video inlay, without menu. (P1)
- Color Peritel\* menu output. (P2)
- Peritel\* color output with video inlay and menu. (P1 + P2)
- High-speed bus for transmission of realtime processing to main-frame computers or special extensions. (Realtime Bus)
- Key signal for video inlay extension or video console. (Key)
- Keyboard connection. (Keyboard)

\*EURO-AV SCART connector

Registered distributor



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